

## ABSTRACT

### AUTOMATIC EVOLUTION OF MIXED ANALOG AND DIGITAL ELECTRONIC CIRCUITS

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A method and system for evolving electronic circuits based on defined rules. A first approach uses a network of nodes having established topological and behavioral relationships amongst themselves. An A/D converter is developed using this approach. A second approach  
10 employs software agents to create signal filters. The software agents are allowed to evolve in signal parameter space so as to match a reference signal, subject to established evolutionary rules and parameter space constraints. Narrowband and a low-pass filters can be formed using such agents.

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